Growth & Change

Local Comprehensive Planning

Local Implementation Tools

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GROWTH AND CHANGE

The Charleston Harbor drainage basin is a very complex arrangement of places and people in need of goods, services, work, shelter and recreation. Its character is absolutely unique, having evolved out of over three centuries of human responses to numerous interrelated physical, economic and social situations.

History itself is a daily occurrence which reflects change, and regardless of whether one regards change as being desirable or undesirable, the Charleston Harbor drainage basin of tomorrow will be different from that of today. Hopefully, this change will reflect local needs and objectives which will improve the quality of our lives. It is, therefore, recognized that the public has a legitimate interest in the type, location, quality, scale, rate, and, sequence or timing of land development and use activities.

Major growth and change is expected to take place in the Charleston Harbor Project Study Area between 1990 and the year 2015. The population of the Study Area is expected to increase by approximately 213,000 persons, to total around 680,500 individuals. Associated with this population projection is a projected increase of nearly 83,900 housing units, 104,800 additional jobs, 115,800 more vehicles traveling on our streets, 47,000 more individuals enrolled in our educational institutions, and, at least 27.17 additional million gallons of wastewater being generated and disposed of every day.

The above projections are believed to be realistic in light of past demographic and economic trends. This Region has been generating an average of over 5,000 new jobs per year from 1970 to 1990. During this same twenty year time period the population increased by over 170,000 individuals. Its location, climate and other resources are conducive to continued industrial and commercial investment, as well as, being attractive to growing tourism and retirement center markets.

The growth projected above is significant and will impact all those living within the Study Area in some manner. More jobs are a benefit in that opportunities for employment should increase significantly. More houses, vehicles, students and wastewater, like some types of economic development may, however, generate more problems than benefits. Large areas will be converted from rural to urban uses with associated negative impacts upon biological habitats and water quality.

Planning programs for this basin are faced with a major challenge of providing for the necessary infrastructure, community services, and economic opportunities to support anticipated growth while enhancing and protecting very valuable and vulnerable cultural and natural resources. These programs need to be designed to be proactive in ensuring that appropriate planning tools are used to shape the future of the Study Area in a manner that more than merely responds to market trends. Planning tools also need to be closely tied to comprehensive development plans which define the desirable future character of the Study Area.

While some growth is anticipated in all thirty one drainage sub-basins within the Charleston Harbor Project Study Area, most of this growth is expected to occur within seven basins. These basins include the Goose Creek Basin; Wando River basin; Dorchester Creek/Eagle Creek basin; Ashley River basin; Stono River basin; AIWW East Cooper basin; and, the Charleston Harbor/Stono River basin. All of these basins include water bodies that have limited or no capacities to assimilate significant increases in pollutant loadings from either point or nonpoint sources.

WATER QUALITY

One of the most important, and appreciated, assets of the Charleston Harbor drainage basin is its water resources. The study area is blessed with large volumes of water of fairly good quality. Primary water quality problems are due to natural conditions resulting in occasional drops in levels of dissolved oxygen resulting in occasional fish kills. Such problems normally occur in the Summer for very short periods of time.

During the past two decades (1970 -1990), the population of this three county area increased by approximately 170,000 persons and water quality has improved in most areas. During this same period of time significant resources were directed toward the improvement of point source wastewater collection and treatment systems. Significant resources were also directed toward nonpoint pollution control

measures involving local planning programs, stormwater management, and other measures included in local land development controls which influence the densities of development, the extent of impervious surfaces, etc..

In order to maintain water quality conditions which continue to attain State water quality standards while accommodating anticipated growth, significant resources continue to be needed to implement water pollution control measures. Clean water is a high local priority and contributes greatly to the quality of life in this Region.

Point Source Pollution:

Point source pollution control programs which deal with wastewater collection and treatment systems are coordinated by a variety of organizations. Most important are 1), the State Legislature which sets water quality standards for surface waters; 2), The Berkeley, Charleston, Dorchester Council of Governments (BCDCOG) which maintains a continuing planning program for the improvement of wastewater transmission, treatment, and, discharge facilities; 3), the S.C. Department of Health & Environmental Control (DHEC) which issues permits for the construction of pollution control facilities and the discharge of wastewater; and, 4), local industries and governmental entities (management agencies) which actually build and operate wastewater collection and treatment systems.

Regional (BCDCOG) point source planning goals which address point source management issues are:

1. All surface waters should meet state standards;
2. The BCDCOG's Water Quality Management Plan and each management agency's program for system expansion should provide for sufficient wastewater treatment capability to accommodate the 20 year growth projected in each service area and still meet Goal #1;
3. Existing point source discharges should be discontinued at such time as connection to a regional public wastewater treatment system is available;
4. New and expanded point source discharges should be discouraged if an environmentally and economically feasible alternative exists;
5. Alternative wastewater disposal techniques should be considered when plans for new or enlarged treatment systems are being considered; and,
6. S.C. DHEC and other state/federal agencies are encouraged to expand, upgrade and integrate their water quality monitoring programs in the region, in order to identify specific sources of existing and potential water quality problems.

The Regional point source Water Quality Management Plan is continually updated as resources and circumstances permit. Presently it is believed that point sources may be over-permitted and that if

all dischargers were to discharge the maximum volumes of discharge provided for in their permits, current water quality standards may not be met. To help deal with this potential issue the Charleston Harbor Project has sponsored the development of an improved water quality model to evaluate the impacts of various discharge proposals. This model should be available in the near future for the Council of Governments to use to adjust permit flow and treatment permit limits in the Regional Plan. DHEC will then adjust flow and permit conditions included in discharge permits.

Nonpoint Pollution:

A warm humid climate and a level topography create significant drainage problems, add significantly to the costs of building and operating wastewater collection and transmission systems, and with frequent summer thunderstorms create significant spikes in nonpoint pollutant loadings in adjacent surface waters. Soil drainage problems also make it difficult to properly support on-site wastewater disposal systems. The failure of septic systems are believed to contribute significantly to pollution problems in several local drainage systems.

Nonpoint sources of pollution from both natural and man made systems are believed to have a greater negative impact upon water quality in the Charleston Harbor estuary than point sources of pollution. Unfortunately, these sources are more difficult to measure and control. Surface debris, chemicals and organic matter (including animal waste), washed into the harbor estuary greatly degrade water

quality.

Nonpoint source management practices essentially attempt to slow down runoff and provide opportunities for pollutants to be absorbed into soils where natural systems can treat and/or remove those pollutants before they reach open water. Land development controls which encourage cluster developments, the preservation of open space, vegetated buffer strips, retention or detention ponds, the minimal use of impervious surfaces, and development in areas with adequate drainage serve as effective tools to minimize the impacts of nonpoint source pollutants.

Regulators have traditionally encouraged developers to use Best Management Practices (BMP's) to reduce volumes and speeds of runoff. BMP's are usually structural features, like settling ponds and artificial wetlands, that reduce the level of pollutants leaving a developed property. BMP's can be expensive and ultimately fail if not well maintained. It is generally agreed that the best place to treat nonpoint pollution is near their point of origin by utilizing pervious surfaces to reduce surface flow volumes and by letting soil and vegetative systems remove pollutants from runoff.

Large areas within the Harbor watershed are also covered by soil types which are not suitable to support traditional on-site wastewater treatment and disposal systems. Central water and sewer systems are needed to support small lot developments in those areas.

LAND USE PATTERNS OF DEVELOPMENT

Types and densities of land development influence their cost of construction, costs of operations & maintenance, and, their impact upon adjacent properties and natural systems. Suburban sprawl, or large lot subdivisions, convert large areas of forest (the best land use from the standpoint of controlling runoff) into roofs, driveways, streets, highways and lawns. They encourage dependency upon the automobile and additional road and parking requirements. As a result, the total amount of impervious surfaces associated with sprawl development patterns exceed the total amount of impervious surface associated with more dense development patterns which incorporate open space into the design process.

LAND WITH UNIQUE VALUE

Shorelines & Wetlands:

Shorelines and wetlands are very important landscape features which influence water quality, property values, enhance the natural beauty of the Harbor, and, serve as important biological habitats. They also represent critical areas where buffer reserves can filter nonpoint pollutants from surface runoff. The unique values and benefits offered by shorelines and wetlands should encourage their special consideration in future planning activities.

Economic Development:

In a Region that has consistently measured far below national averages of wealth and income, Economic Development Programs are generally considered to be a top priority activity by local officials. Pressures are great to accept almost any type of economic investment that will create jobs for the community regardless of their impact upon other natural or man made systems.

It is recommended that economic development agencies target industries that are compatible with the goals and objectives of the Charleston Harbor Project. The costs of dealing with industries that will generate large volumes of air and/or water pollution, or that will create significant transportation and/or other infrastructure problems, may not be worth the potential benefits to the area.

It is also recognized that the complexity of permitting processes, and the time it takes to deal with those processes, reduces the effectiveness of economic development recruiting programs. The appointment of a liaison agency to expedite communications between permitting agencies and the economic development community may help to address this issue.

The continuing maintenance of an inventory of prime industrial sites in the Region will help the economic development process. Selected information about each prime site could then be collected to expedite the permitting process.

Cultural Resources:

Cultural resources include historic buildings, structures and sites; unique commercial or residential areas; unique natural or scenic resources; archeological sites; educational, religious, or entertainment areas or institutions; and, any other resource relating to the cultural aspects of the Study Area. Due largely to the history of this area, its cultural resources are very numerous. In some areas preservation programs are effective in maintaining these resources. In other areas these resources are being lost or neglected primarily because our knowledge is limited.

There is a continuing need for surveys to identify our cultural resources, their location and significance. This knowledge needs to be made available to local officials and interest groups so that they can be of greater help in supporting preservation programs and other cultural activities. Support for the preservation and conservation of cultural resources originates from an informed citizen base with access to those resources.

Unfortunately, agencies charged with regulating and permitting functions have found it necessary to most frequently react to development proposals due to a lack of resources. Such programs need access to modern technology, such as Geographic Information System capabilities, to increase their capacity to obtain background information. They also need to be proactive and be involved in pre-permitting activities associated with prime industrial sites in high growth areas. Finally, they need the capability to be leaders in the

development of local academic and scientific research projects, and, local educational and recreational programs.

Recreational Resources:

Demands for active and passive recreational opportunities will increase with growth. The costs of obtaining and developing appropriate sites will also increase greatly as competing land uses develop potential sites. It is anticipated that the costs of obtaining and developing sites will limit the ability of recreation providers to expand their programs in the future.

Recreation agencies need to reserve sites for future development when acquisitions are possible. Facilities and programs also need to be designed and operated to receive maximum benefits from existing facilities while avoiding conflicts between user groups. Public/private partnerships may help generate the revenues needed to acquire and develop facilities and programs.

LOCAL COMPREHENSIVE PLANNING

The previous sections of this report are intended to point out the major issues which will influence planning programs for the Charleston Harbor Project Study Area. Growth and change is expected to be significant in the next twenty years and local planning programs will play a major role in providing direction to this change.

A great variety of Federal, State and Local public agencies develop and implement plans for their special programs in the Harbor Project Study Area. Hopefully, those agencies will be aware of the goals and objectives of the Harbor Project and implement activities which support those goals and objectives.

Regional Planning programs coordinated by the BCD Council of Governments include Point Source Management Planning as required by section 208 of the Clean Water Act, and, Transportation (CHATS) Planning for the Charleston Metropolitan Area. Both of these programs address important elements of any management study involving the environment and Charleston Harbor.

Local government planning activities will play a major role in guiding future growth and development in the Study Area. Eighteen general purpose local governments have been delegated the authority by the State to implement planning tools regulating the type, density and distribution of land uses within their jurisdictions. Six special purpose agencies have also been created to provide water and/or sewer services within parts of the Study Area.

The Comprehensive Plan:

The comprehensive plan establishes the basic policies for guiding development within local governmental jurisdictions. It is a visionary statement which utilizes goals and objectives to define desirable

future conditions, as well as, implementation strategies for accomplishing those objectives. Over time this general framework is translated into more detailed plans which may include specifications for zoning, transportation, recreation, conservation, subdivision expansion, housing, schools, historic preservation, growth management and other issues of common concern.

In order for local governments to undertake planning or zoning activities the State must grant them the power to do so. In South Carolina, the General Assembly first passed enabling legislation giving municipalities zoning authority in 1924, and later granted counties similar authority in 1942. Over the past three decades, the most widely used planning enabling legislation was an Act passed in 1967.

In 1994, The S.C. General Assembly passed new planning enabling legislation entitled the "South Carolina Local Government Comprehensive Planning Enabling Act". This Act repealed all the previous local planning enabling legislation scattered throughout the State Code of Laws. It also updated the older laws by including current practices and new methods, tools and procedures for local government planning. <u>All counties and municipalities with planning programs must make their plans and ordinances conform with the provisions of the new 1994 Act by May 3, 1999.</u>

The 1994 Act provides that a municipality may exercise its authority to plan, zone and regulate development within the entire

area included within its corporate limits. A county may exercise its planning authority in the total unincorporated area or within specifically designated parts of the unincorporated area.

The 1994 Act also stipulates that local governments must establish a local planning commission before they can begin comprehensive planning. The basic responsibility of the local planning commission is to develop and carry out a continuing planning program for the physical, social, and economic growth, development and redevelopment of the area within its jurisdiction.

The elements of the comprehensive plan must be designed to promote the public health, safety, morals, convenience, prosperity, general welfare, efficiency and economy of its area of concern. Each planning element must be based upon careful and comprehensive surveys and studies of existing conditions and probable future development needs, and, include recommended methods for implementing the plan. All surveys and studies must consider the plans effect on adjacent subdivisions, as well as, any regional plan or issues that may impact them.

In carrying out its responsibilities, the 1994 Act authorizes the local planning commission to:

1. develop a comprehensive plan, and, prepare and periodically revise development and/or redevelopment plans and programs; and,
2. prepare and recommend measures for carrying out the plan. The appropriate governing bodies must approve the recommended measures before they may become effective. Such measures include

the following;

a. Zoning Ordinances that include text, maps and recommended amendments thereto. (Zoning is only one of several devices available to local governments to implement its comprehensive plan); The Act does not allow the planning commission or governing body to grant "conditional uses", or "uses upon review". Appeals, variances, special exceptions, and conditional uses requiring review are now the exclusive authority of the board of zoning appeals.

b. Regulations for Land Subdivision or Development. The planning commission is responsible for overseeing the administration of the regulations once they are adopted by the local governing body;

c. The Official Map and appropriate revisions showing the exact location of existing or proposed public streets, highways, utility rights-of-way, and public building sites. The commission is responsible for developing regulations and procedures for administering the official map ordinance;

d. A Landscaping Ordinance providing required standards for planting, tree preservation and other environmental and aesthetic considerations;

e. A Capital Improvements Program listing providing for the timed allocation of public investments necessary to implement adopted plans. The planning commission must also submit an annual list of priority projects to the appropriate governmental bodies for consideration when they prepare their annual capital budgets. The commission should take these priority projects from adopted plans; and,

f. Policies and Procedures to help carry out the adopted comprehensive plan elements. These policies and procedures could cover such subjects as expanding water and sewer systems, accepting dedicated streets, accepting drainage easements, offering economic development incentive packages, and, acquiring rights to property for conservation purposes.

Beyond the items listed above and in the 1994 Planning Act, the local governing body or the planning commission may add other activities to address special local needs.

A comprehensive plan must include at least seven elements defined in the 1994 Planning Act. The plan may also include any other locally determined elements the planning commission deems to be of value. All elements are considered to be the planning commissions recommendations with regard to the wise and efficient use of public funds, future growth, development and redevelopment of its area of jurisdiction.

The planning commission must consider plans prepared by other

agencies and jurisdictions. If the commission determines that those plans meet local needs, those plans can be recommended by reference to the local governing body for adoption as part of the comprehensive plan.

The seven (7) required elements of the comprehensive plan include a:

1. Population element. The population element includes information related to historic trends and projections; number, size and characteristics of households; educational levels and trends; income characteristics and trends; race, sex, age and other information. This information should give commission members a clear understanding of how the population affects the existing situation and the future potential of the area.

2. Economic element. The economic element includes historic trends and projections on the numbers and characteristics of the labor force, where the people who live in the community work, where workers reside, available employment characteristics and trends, an economic base analysis and any other matters affecting the local economy. Tourism, manufacturing and revitalization efforts may be appropriate factors to consider.

3. Natural resources element. This element may include information on water quality, air quality, coastal resources, topography, prime agricultural and forest lands, plant and animal habitats, unique park and recreation areas, unique scenic views and sites, wetlands, flood plains and soil types. This element can include

any matter related to the natural environment of the area which is of local significance.

4. Cultural resources element. This element could include historic sites, buildings and structures, unique commercial and residential areas, unique natural or scenic resources, archeological sites, educational, religious, or entertainment areas or institutions and any other feature or facility relating to the cultural resources of the community.

5. Community facilities element. This element includes many activities essential to the communities growth, development or redevelopment. The commission should give separate consideration to the following plans;

a. transportation facilities;

b. water supply, treatment and distribution;

c. sewage system and wastewater treatment;

d. solid waste collection and disposal;

e. fire protection;

f. emergency medical services;

g. plans for any necessary expansion of general government facilities (e.g. administrative, court or other facilities);

h. educational facilities; and,

i. Libraries and other cultural facilities.

(Note: the community facilities element must be adopted before the local government adopts subdivision or other land development regulations).

6. Housing element. This element includes an analysis of existing housing by age and condition, owner and renter occupancy, location, type and affordability. It also contains projections about housing needs to accommodate the existing and future populations as identified in the population and economic elements.

7. Land use element. This element deals with land development characteristics. It considers existing and future land use by categories including residential, commercial, industrial, agricultural, forestry, mining, public and quasi-public, recreational, parks, open space and vacant or undeveloped land. All previously described elements influence the land use element. The findings, projections and conclusions from each of the previous six elements will influence the amount of land needed for various uses.

(Note: the land use element must be adopted before the local government adopts a zoning ordinance).

The planning commission must review the comprehensive plan or particular elements of the plan as necessary. The 1994 Planning Act provides that the planning commission must reevaluate the comprehensive plan elements every five years. The plan and all its elements must be updated at least every ten years. Every ten years the governing body must adopt a new comprehensive plan. A comprehensive plan or any plan element over ten years old may be subject to challenge.

Local Environmental Regulations

Land use regulation is the most common environmental protection technique used among local governments in the Harbor Project study area. Regulations are inexpensive compared to acquisitions and can provide substantial protection for environmental resources if adequately enforced.

Regulations generally take the form of zoning and subdivision controls. Regulations may be adopted as separate ordinances intended to protect specific environmental resources or as part of a more comprehensive ordinance regulating a number of activities in addition to environmental concerns.

While regulations vary in their details, they have some basic common elements including:

1. A statement of environmental protection goals;

Resource protection goals may be stated in one or several sections of an ordinance - preamble statements, goals, legislative purposes/intent, findings of fact, or objectives. Goal statements should justify the regulations as a means of executing specifically mandated state statutes where they exist or the general mandate of protecting the public health, safety, and welfare. Citing specific values of protected resources and addressing problems associated with inappropriate uses or development can make the necessary linkage to public health, safety, and general welfare.

2. A definition of the resource to be protected;

Definitions usually include criteria for identifying resources to be protected as well as maps showing known locations of that resource. Field surveys may need to be conducted on a case by case basis to delineate boundaries using specific criteria.

3. A list of prohibited and permitted uses or performance standards; and,

4. A section on penalties.

Zoning for Environmental Protection.

Zoning is a legal means for the regulation of the use of land and structures, the area of a lot that may be developed, the density of development, and the height and bulk of buildings and other structures. Traditionally, zoning has been concerned with the location and use of land, leaving the timing of development to the developer. Zoning can be tied closely to capital programming to trigger the consideration of zoning changes as more support infrastructure, in terms of both programs and facilities, become available to specific parcels of property.

A zoning ordinance is composed of two parts; a text and a map. The text identifies the regulations and permitted uses that will apply in each zoning district. The map graphically locates the boundaries of the zoning districts.

Environmental regulations implemented through zoning ordinances may apply to specific resource protection districts, and/or, districts including sensitive areas, conservation, or resource protection districts. Specific resource protection district regulations provide the most suitable framework for a comprehensive and detailed statement of regulatory purpose, findings of fact, and protection standards.

Standards for Protection and Use.

Zoning Ordinances generally list uses permitted as a right and those requiring a case-by-case review before an individual permit (also called special permit, special exception, or conditional use) is issued. Individual permits are issued if proposed activities meet specified standards.

Specifying what activities will or will not be allowed, and under what conditions, is the essence of a resource protection ordinance. A broad assortment of approaches and regulatory techniques are available to local communities to develop resource protection regulations. Whether a locality uses general or specific performance standards, limits uses by activity types or density restrictions, or utilizes some combination these and other techniques, certain objectives should be considered requisite to a successful program. Regardless of the activity to be controlled, protection and use standards should include provisions for:

1. Elimination or avoiding negative impacts on the protected resource;

2. Ensuring that approving a permit application will not cause, or make worse, hazardous conditions;

3. Protecting the natural functions of the protected resource;

4. Achieving consistency with other broader plans and regulations; and,

5. Minimizing impacts and restoring or replacing protected resources as necessary.

Eliminating or avoiding impacts. An applicant can be required to demonstrate the need to locate a proposed use in an environmentally sensitive area and to prove that an alternative site is not available. This test presumes that a proposed use must, by definition, require access through a protected resource to function and that it should not receive approval for such location unless no other site is suitable or available.

Ensuring no increase in hazard. A proposed use in an environmentally sensitive area should not increase natural hazards to public health, safety, and welfare. This can be accomplished by

requiring applicants to provide appropriate technical information needed to determine potential impacts.

Protecting natural functions. A community may undertake a site specific evaluation or require the applicant to perform a comprehensive functional assessment of the potential impact upon specific environmental functional attributes. Assessments can provide the information needed to help determine if an environmental resource is serving a particularly significant ecologic role: to determine the degree of impairment that may affect a resource should a proposed use be allowed; to clarify benefits or losses resulting from proposed developments; to identify conditions that could be attached to permits to mitigate potential impacts; and, to provide baseline information for use in restoration/replacement efforts.

Consistency with other plans. Planners may employ administrative procedures that supplement ordinances or include measures such as interagency review procedures to facilitate coordination with agencies having particular interests in a permit review. Coordinated reviews help to identify and reinforce adherence to relevant state, regional and federal policies, and to laws or plans that explicitly impact local decision making options.

Minimizing impacts and restoring or replacing protected resources as necessary. The term "mitigation" encompasses a broad array of activities when applied to resource management. Mitigation has been defined in the National Environmental Policy Act of 1969 to include the following

a. Avoiding the impact altogether by not taking a certain action or parts of an action;

b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;

c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and,

e. Compensating for the impact by replacing or providing substitute resources or environments.

The use of buffer strips, setbacks, limitations on vegetation clearing, erosion and sediment control practices, and other mitigation measures can be incorporated into ordinances to minimize impacts. Typical mitigation measures include such practices as:

1. Limit uses to those with minimal impact on natural values (e.g., parks, growing of natural crops).

2. Limit development densities (e.g., require large lot sizes). A useful technique for reducing the quantity and impact of septic system leachate that migrate into surface water systems. This technique does contribute to exurban sprawl, increasing pressure on public services such as roads and water and sewer lines.

3. Cluster development on upland sites to protect sensitive and hazardous areas.

4. Elevate structures on pilings or other open works.

5. Route access roads, utilities, etc., around the most sensitive areas.

6. Fence wetlands and floodplains to protect natural vegetation and water quality and to reduce erosion.

7. Replant natural vegetation in sensitive natural areas when the destruction or vegetation cannot be avoided.

8. Reduce erosion in exposed areas through rip-rap or other measures.

9. Construct fish pools in channelization projects; install fish ladders at dams.

10. Manage game to enhance and reestablish species.

11. Use silt fences and similar measures to control runoff from construction sites; construct detention ponds to trap

sediments.

12. Operate dams to provide sufficient flows for downstream fish and wildlife and to periodically flush wetlands.

13. Construct new wetlands and other wildlife areas by diking, land acquisition, and other means to compensate for unavoidable losses.

The following planning techniques offer special potentials for dealing with natural or cultural issue resources in a zoning ordinance:

A. Cluster Developments which group residential, commercial or industrial uses within a subdivision or development site. Cluster developments permit smaller lots and higher densities of development on those parts of a site most conducive to development, and allow the remaining land to be devoted to open space. Local governments allow cluster zoning either through zoning ordinance provisions for a permit process or by using a floating zone.

B. A Floating Zone is a zoning district described in the zoning text but is unmapped. It is commonly used to provide for small neighborhood shopping centers, cluster and planned

developments. If a property owner can meet set conditions in the zoning ordinance describing the floating zone district the property would be rezoned;

C. Performance Zoning specifies a minimum requirement or maximum limit on the effects of a land use. This can be done instead of or in addition to specifying the use itself. It assures that the development is compatible with surrounding uses and increases a developers flexibility in uses. A further application is to meet environmental concerns by specifying maximum levels of stress to be imposed upon natural resources.

D. Planned Development Districts combine some of the attributes of zoning and subdivision regulation into one development ordinance. Rezoning establishes a mixed use planned development district prior to its development. The text of the rezoning amendment describes the specific uses, densities, setbacks and other requirements for the planned development. These provisions tailored to a specific development may vary from other zoning district regulations concerning use, setbacks and other requirements.

E. An Overlay Zone places a set of requirements or relaxes a set of requirements imposed by an underlying zoning district. An area is given an overlay designation if it has a special public

interest but does not coincide with the underlying zone boundaries. An overlay designation is not a separate district classification. It identifies an area subject to supplemental regulations. The technique is used to regulate areas needing special consideration such as; historic sites, floodplains, wetlands, preservation or conservation areas, significant highway corridors, and, areas around airports; and,

F. Conditional Uses are uses that must meet conditions, restrictions or limitations on a permitted use. The zoning text must describe the conditions, restrictions or limitations. This technique is used to allow uses compatible within the district but which may have an adverse impact on an adjacent district unless specific conditions are imposed on that use. Conditional uses are uses specified in district regulations and are allowed only when specified conditions are met. If additional conditions are imposed the use is listed as a permitted special exception which can only be granted by the board of zoning appeals.

Other Types of Plan Implementation Tools.

Environmental protection measures are often included in codes other than the zoning ordinance. Floodplain ordinances include provisions intended to protect the natural characteristics and functions of floodplains. Subdivision regulations are used to encourage the clustering of developments on upland sites and the

dedication or permanent preservation of sensitive environmental sites. Building Codes are used to limit development options in areas with high groundwater tables or other hydric soils characteristics. Stormwater management ordinances are used to protect lives and property from flood hazards, as well as, to reduce non-point source pollutant loadings into surface waters. Pollution control regulations are used to limit discharges of wastewater which in turn may limit new connections to wastewater collection systems.

The balance of this section includes a summary of selected planning tools available to implement local plans.

1. Public acquisitions.

Public acquisitions involve the public, or publicly authorized, acquisition of land to be held for future use to implement public policies. Advance acquisitions usually involve sites for specific uses such as schools, community facilities or conservation, or, preservation purposes. Advance acquisitions may also be used as a growth management tool where the specific nature of the future use of a unique parcel of land may not be known at the time of the acquisition.

Public acquisitions may be made directly by public action, or, by nonprofit organizations under an agreement with a public entity. Acquisitions may include all rights of ownership, or, limited rights of ownership, such as; access and development.

2. Public improvements.

A. The location of, and access to, public improvements influence both growth patterns and trends. The timing and placement of roads, sewer, water, and other facilities essential to support community development is an effective means to influence growth patterns.

B. Access to existing facilities may also be limited to influence growth trends. Limiting curb cuts is a means to protect the capacity of roadways which will also effect the character of development on adjacent properties. Programmed capacities of water and/or sewer systems can be related to designated growth areas that have the capacity to sustain environmentally sound development.

3. Environmental controls.

A. Land development controls are designed to protect natural processes such as flooding, stormwater runoff, groundwater recharge, or to prevent development in sensitive resource areas such as wetlands and shorelines where erosion and water quality problems normally occur with development. Controls are normally of a performance type intended to ensure that natural processes are not damaged or infringed upon by proposed developments. They include requirements for buffer areas; setbacks; drainage retention ponds; landscaping; the extent of impervious surfaces;

and, other activities which diminish the negative impacts of development upon natural systems.

B. "Critical areas", is a term that generally refers to an environmentally sensitive area in which residents of the state, or nation, other than those in the local government jurisdiction making land use decisions, have an interest. The interest is usually exercised via state or federal designation and regulation.

C. Development of regional impact, parallels the critical areas approach in recognizing interests beyond the immediate locality. The intent is to enable those with an interest in a decision to participate in the decision. The most common form of use is through state designation or state criteria for the designation of areas, accompanied by a set of binding guidelines to restrain activities in those areas.

D. Construction codes, Construction codes in the Harbor Project study area include special provisions because of the need for seismic protection considerations in the construction process. Flood protection ordinances also place special conditions upon development in designated flood plains.

E. Pollution controls. Air and water pollution standards have

an effect upon the location, type, density, and costs of development in much of the Harbor Project study area. Air pollution limits effect industrial options to locate near wildlife preserves and designated wilderness areas. Water Quality controls regulate the use and location of on-site disposal systems. Public wastewater systems are limited in their areas served because of the costs of expending lines. Wastewater Treatment Facilities are expected to become more expensive to operate as the assimilative capacities of receiving streams diminish.

4. Development rights transfer.

Development rights transfer breaks the linkage between particular land and its development potential by permitting the transfer of that potential, or "development rights", to land where greater density will not be objectionable. In brief, an adopted plan would designate areas where development is restrained and areas where development is permitted. An owner in a restricted area can sell his rights to an owner in a permitted area who may have fewer rights than he needs in order to develop. This is a very difficult tool to develop and administer.

5. Restrictive covenants and other agreements running with the land.

Deed restrictions, easements, and other negotiated agreements

incorporated in land title documents. These are private agreements that transfer with ownership. Covenants can be used to tailor the purposes of zoning and other police powers to a specific site or to be more restrictive than general public requirements. While agreements may be incorporated by a developer at the request of a public agency, the restrictions can not be amended by public action.

6. Conventional subdivision regulations.

Along with zoning, subdivision regulations are the most common development control device sponsored by local governments in the Charleston estuary at this time. Subdivision regulations are used to control the process of converting raw land into building sites. They provide the means to ensure adequate public improvements to serve those building sites; to enforce certain lot sizes, set backs, and similar provisions in zoning ordinances; to assure purchasers of developable, drained lots; and, to enable local governments to coordinate the work of adjacent, separate developers.

7. Zoning or subdivision controls relating to the adequacy of off-site facilities.

These controls are most frequently used in conjunction with the programming of public capital investments where development is permitted in locations where adequate services exist or will be

provided in the near future. In many instances the developer is allowed to construct necessary facilities as an alternative to enable the property to meet the adequacy requirement for development.

8. Exactions and other requirements.

In the subdivision process it is fairly common to require the dedication of money, land or improvements to meet the needs generated by new developments as a condition of plat approval.

9. Tax and fee systems.

Contracts between governments and property owners which provide tax benefits and\or favorable fee discounts provided that properties are used for specific purposes. For example, job creating economic developments, residential home owners, agriculture and forestry uses all may benefit from reduced tax rates or fees in South Carolina. The sale of environmentally sensitive or valuable properties, or easements thereto, may also benefit from local, state and federal tax benefits.

10. Annexation including timed and conditional boundary adjustments and servicing.

Annexation can be an effective growth management tool where urban services are needed to support growth and such services are not available to adjacent unincorporated areas. In such instances

developers either have to negotiate the extension of city services or get annexed into an incorporated area.

11. Official mapping (roads, streets, parks, and drainage systems).

    The official map is a map showing and reserving the location of existing or proposed public streets, highways, public utility rights-of-way, public building sites and public recreation, conservation and open spaces. Once the official map is approved by a local government permits can not be issued for constructing, improving, repairing or moving any building or structure on property shown on that map. Permits can not be issued for any change in a land use for property reserved on an official map. Property owners whose property is included on an official map may request an exemption from official map restrictions, or, directly apply for a permit to develop that property. If such action is taken the governing body, or other public agency, has a limited period of time to either approve the permit request or initiate action to acquire the property.

12. Geographical restraints.

    A growth control system which identifies a geographical limit to development. Usually defined as areas within which certain levels of services will be provided; others show capital programs with a resultant service area boundary.

13. Numerical restraints or quota systems.

These systems set a number rather than an area as a growth limit. The following four measures are usually utilized in numerical limits or quota growth management systems:

A. Total population charter provisions where a limit is established in number of housing units;

B. Annual building permit limits;

C. Population and employment targets set by policy as the basis for capital programming; and,

D. "Fair share" allocations determined at the metropolitan level as a means to offset claims of exclusion or discrimination when numerical or quota systems are utilized.

14. Development agreements.

A long term agreement between a developer and a local government which gives the developer a vested right during the term of the agreement to proceed according to land use regulations in existence on the date of the agreement.

The agreement identifies uses and densities of land uses, the provision of public facilities (who & when), and, the

dedication or reservation of land for public purposes and/or environmental protection reasons are included among the required contents of these agreements.

Development agreements are used as a means to encourage the coordination of comprehensive and capital facilities planning, more efficient resource use, and, reducing development costs.

15. Other planning and management techniques. (interim development controls, environmental moratoria, one stop permitting, environmental impact or assessment studies, economic benefit analysis, policy impact studies, information, education, monitoring, and technical assistance.

A. Planning Moratoria and interim development controls. Moratoria must be set up appropriately and accompanied by interim development controls to provide for the orderly processing of acceptable and hardship cases while new policy and plans are being prepared.

B. Environmental Moratoria. Environmental moratoria are tied to the programming of facilities to solve the problems on which the moratoria are based. (for example: the expansion of a wastewater treatment plant).

C. One stop Permitting. A process intended to expedite

development by enabling developers to obtain all necessary permits from one source agency.

D. Environmental Impact or Assessment. Environmental impact statements are typically studies required of the agency authorizing development and prepared in response to a project proposal. Environmental assessments refer to statements prepared by project sponsors as part of their development proposal.

E. Economic Benefit Analysis. A means to evaluate major development proposals. Unfortunately, many social and environmental considerations can not be treated adequately in a dollar bases cost/benefit balance sheet. They can be used to evaluate the capability of a proposed development to generate tax revenues sufficient to pay for the added public services it would require.

F. Policy impact studies. Analysis of the impact of various public policies or development proposals. Studies often center upon the interactions of growth rates, public facilities, community costs and revenues, and environmental impacts.

G. Information, Education, Monitoring and Technical

Assistance. Development can be influenced by providing the market with better information. This may include such information as land values, available support services, and natural resource problems and opportunities. Public decision making can also be improved by timely information on the consequences or impacts of project approval. Monitoring programs are important activities because they provide measurements of progress being made to attain community planning goals, and, monitoring improves the quality of predictions of the consequences of development proposals. Technical assistance is an important need in many jurisdictions which lack the staff capabilities to administer growth management systems.